CME Group

AutoCert + Drop Copy
User Manual

4/15/2014

Futures trading is not suitable for all investors, and involves the risk of loss. Futures are a leveraged investment, and because only a percentage of a contract's value is required to trade, it is possible to lose more than the amount of money deposited for a futures position. Therefore, traders should only use funds that they can afford to lose without affecting their lifestyles. And only a portion of those funds should be devoted to any one trade because they cannot expect to profit on every trade.

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All matters pertaining to rules and specifications herein are made subject to and are superseded by official CME, CBOT, and NYMEX rules. Current rules should be consulted in all cases concerning contract specifications.

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Please submit user experience feedback about this help system.

Getting Started

The AutoCert+ tool is an automated testing tool for validating application functionality. It provides an easy-to-use web interface for walking through CME Group certification scenarios.

To facilitate the process of connecting a customer application to CME Globex, CME Group provides a dedicated certification environment to allow customers to test their systems before they complete certification.

The AutoCert+ Drop Copy facility provides a separate, one-way session for CME Group customers to receive real-time CME Globex Execution Report messages from iLink sessions.

Note: The message body of all Drop Copy application messages is identical to the standard iLink session.

Drop Copy functionality duplicates outbound messages from source iLink sessions and routes them to drop copy sessions to enable aggregate position and settlement monitoring. The Drop Copy session may be within a clearing firm or across multiple clearing firms and requires clearing firm approval.

Note: This test suite uses "Dummy Contracts" or "Certification Dedicated Instruments" during the certification process.

To run and navigate AutoCert+:

1. Log into the automated certification tool.
2. Review general AutoCert+ test suite navigation and general interview information.
3. Complete the Interview for this test suite.
4. Complete applicable test cases.
5. Complete the certification process from the Post Certification tab.

What's New

The list below illustrates the updates made to the AutoCert+ Drop Help system.

Date	Author	Topic	Description
4/15/14	DT	All	Updated links and edited to meet Help standards.
10/9/13		Receive Message Stream (FIX and Application Resend)	Updated screenshot and test description.
6/28/13		Simulated Order Mass Action Messages	Added new topic.
9/5/12		Getting Started	Enhanced Getting Started section.
9/23/11			Update all screens for 4.0 enhancements
5/19/11			Miscellaneous updates.
2/16/11			Original Flare Draft

Interview

The interview consists of a series of questions about your trading application. Based on your responses, certain tests are required and others are optional. You must complete the pre-certification interview before running the test cases.

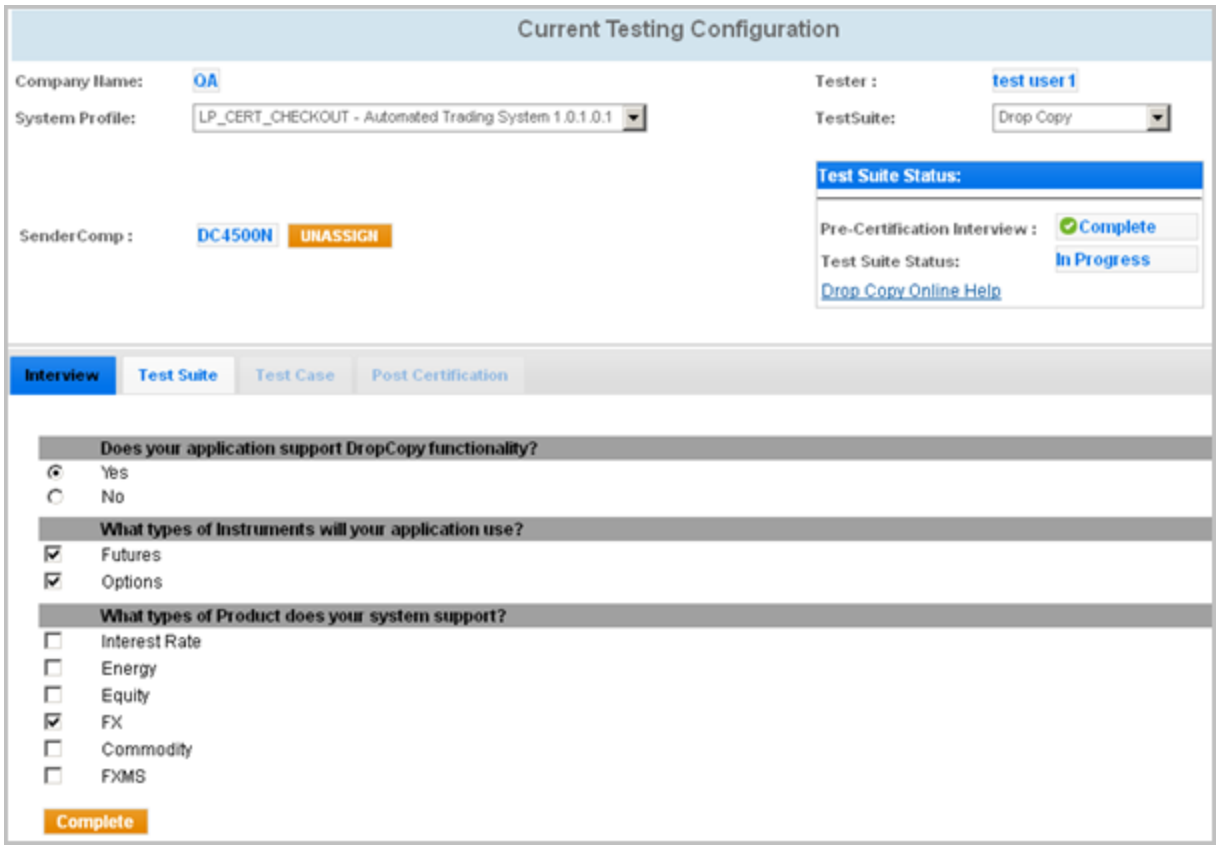
To complete the interview, select **Yes** or **No** to the question regarding whether or not your system supports Drop Copy functionality.

In addition, you must determine the types of instruments (options or futures) and the types of Products (interest rate, energy, equity, FX, commodity, and/or FXMS) your system supports.

For the question, "What types of Instruments will your system support?" note the following:

- If you select both Futures and Options, then future dummy contracts are used for all test cases (futures override options).
- If you select Futures or both Futures and Options, all order types are available for a selection.
- If you select only Options, then only Market Limit is available for the order type.

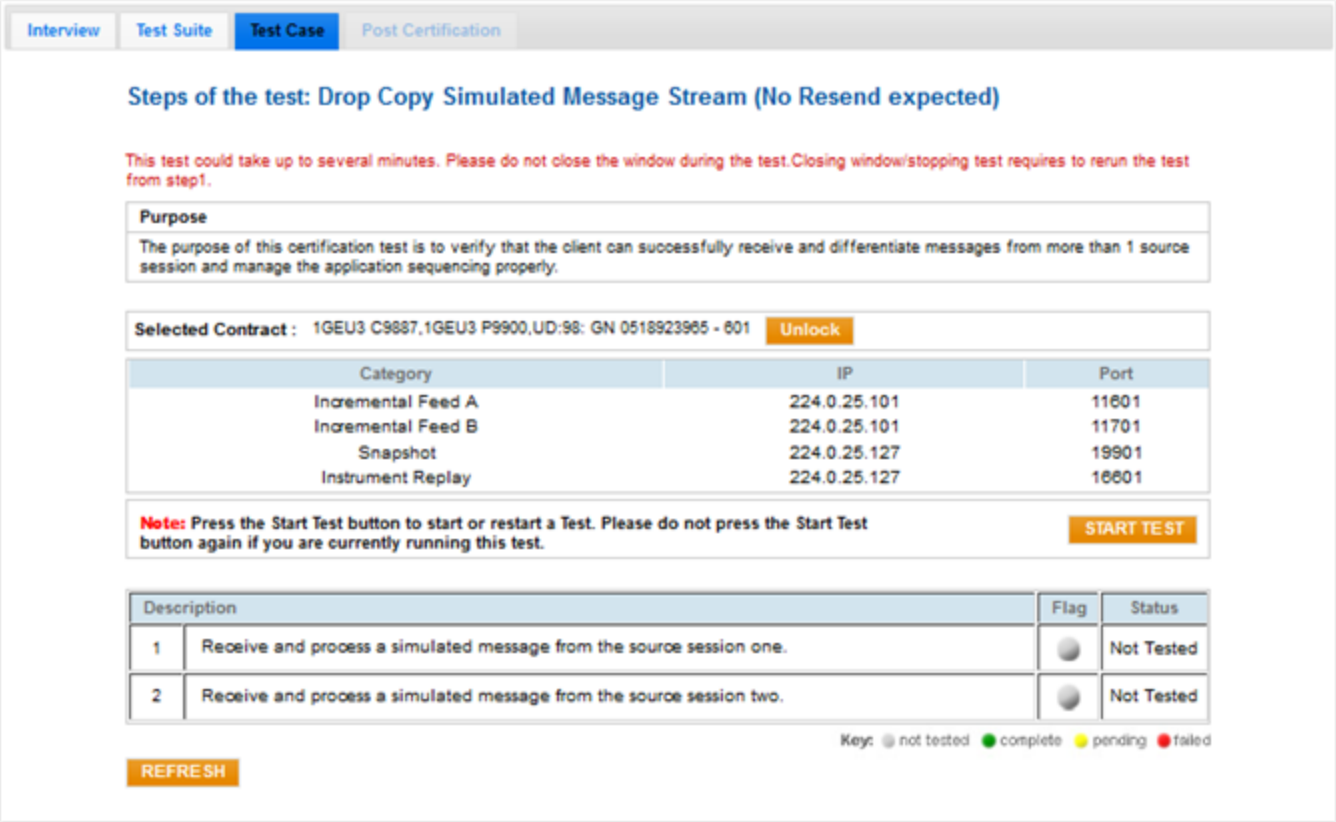
After answering the Interview questions, click the **Complete** button.



Receive Message Stream (No Resend)

This test verifies that the client can receive and differentiate messages from more than one source session (simulated iLink sessions) and manage the application sequencing properly.

Note: This test case is mandatory if you answered "Yes" to the question, "Does your application support Drop Copy functionality?" in the Interview.


Interview
Test Suite
Test Case
Post Certification
Steps of the test: Drop Copy Simulated Message Stream (No Resend expected)
This test could take up to several minutes. Please do not close the window during the test.Closing window/stopping test requires to rerun the test from step1.
Purpose
The purpose of this certification test is to verify that the client can successfully receive and differentiate messages from more than 1 source session and manage the application sequencing properly.
Selected Contract : 1GEU3 C9887,1GEU3 P9900,UD:98: GN 0518923965 - 601
Unlock
Category
IP
Port
Incremental Feed A
224.0.25.101
11601
Incremental Feed B
224.0.25.101
11701
Snapshot
224.0.25.127
19901
Instrument Replay
224.0.25.127
16601
Note: Press the Start Test button to start or restart a Test. Please do not press the Start Test button again if you are currently running this test.
START TEST
Description
Flag
Status
1
Receive and process a simulated message from the source session one.
Not Tested
2
Receive and process a simulated message from the source session two.
Not Tested
Key: not tested complete pending failed
REFRESH

To verify that the client can receive and differentiate messages from more than one source session:

1. From the **Contract** drop-down, select the desired contract if the contract is not already locked.
2. Click the **START TEST** button.

   Note: **DO NOT** select the **START TEST** button once the test process is in progress.

3. Enter the values from the following tags to verify that your system received and processed a simulated message from source session one.
   - tag 1180 ApplicationID.
   - tag 1350 ApplLastSeqNum

5. Enter the values from the following tags to verify that your system received and processed a simulated message from source session two.
    - tag 1180 ApplicationID.
    - tag 1350 ApplLastSeqNum

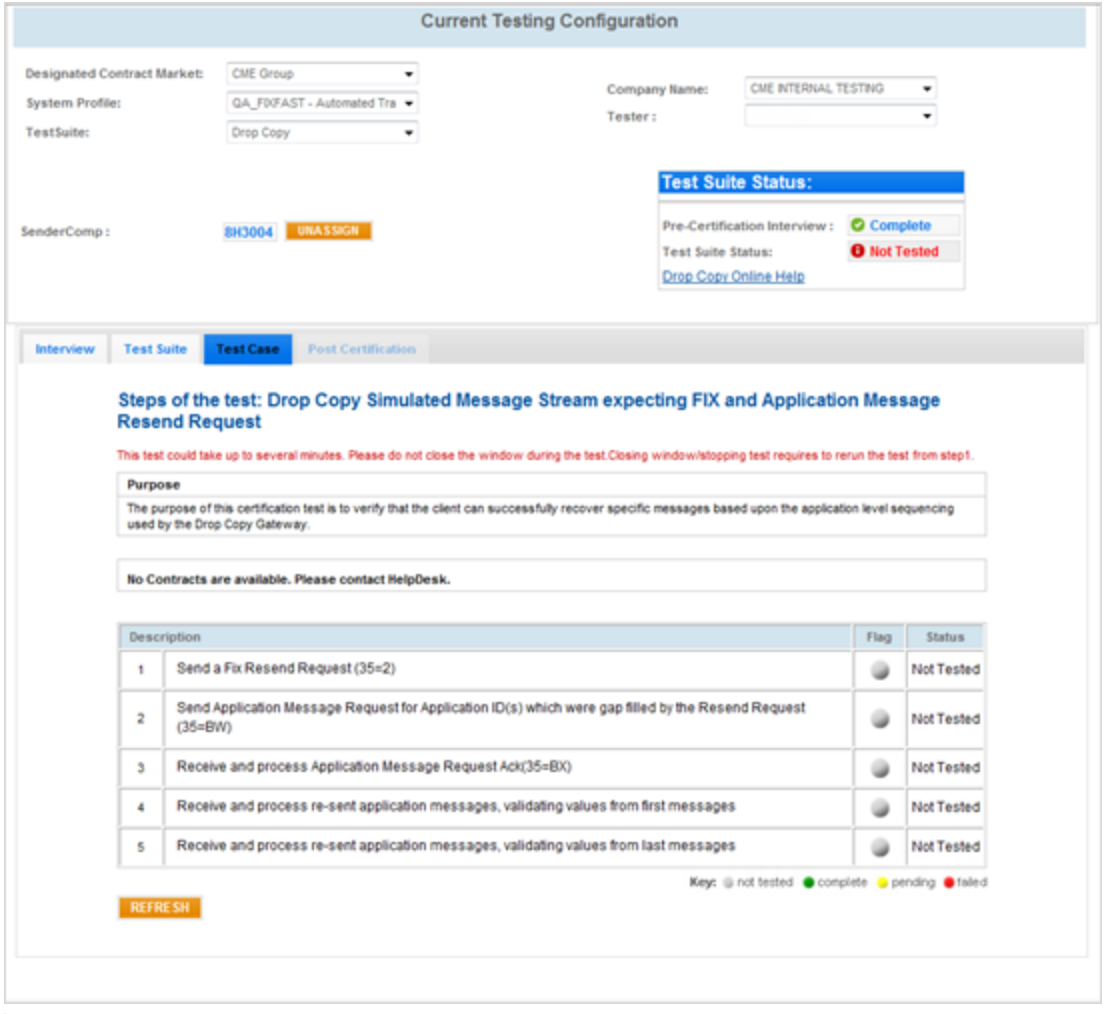
6. Verify the total message count.

Receive Message Stream (FIX and Application Resend)

This test verifies that the client system can successfully recover specific messages based upon the application level sequencing used by the Drop Copy Gateway.

Note: This test case is mandatory if you answered "Yes" to the question, "Does your application support Drop Copy functionality?" in the Interview.

For more details on resend logic, refer to the Drop Copy Resend Request topic in the Client Systems Wiki.


Current Testing Configuration
Designated Contract Market:
CME Group
System Profile:
QA_FIXFAST - Automated Tra
TestSuite:
Drop Copy
Company Name:
CME INTERNAL TESTING
Tester :
Test Suite Status:
Pre-Certification Interview :
Complete
Test Suite Status:
Not Tested
Drop Copy Online Help
SenderComp :
8H3004
UNASSIGN
Interview
Test Suite
Test Case
Post Certification
Steps of the test: Drop Copy Simulated Message Stream expecting FIX and Application Message Resend Request
This test could take up to several minutes. Please do not close the window during the test.Closing window/stopping test requires to rerun the test from step1.
Purpose
The purpose of this certification test is to verify that the client can successfully recover specific messages based upon the application level sequencing used by the Drop Copy Gateway.
No Contracts are available. Please contact HelpDesk.
Description
Flag
Status
1
Send a Fix Resend Request (35=2)
Not Tested
2
Send Application Message Request for Application ID(s) which were gap filled by the Resend Request (35=BW)
Not Tested
3
Receive and process Application Message Request Ack(35=BX)
Not Tested
4
Receive and process re-sent application messages, validating values from first messages
Not Tested
5
Receive and process re-sent application messages, validating values from last messages
Not Tested
Key: not tested complete pending failed
REFRESH

To verify that the client can successfully recover specific messages:

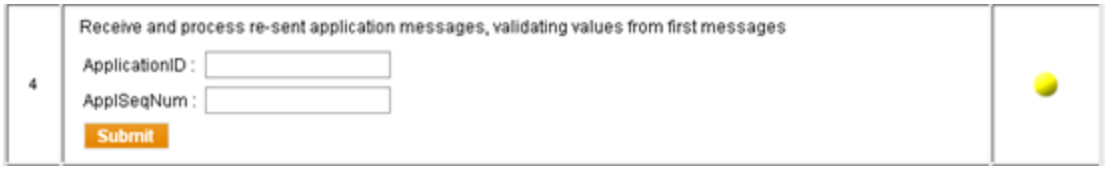
1. From the **Contract** drop-down, select the desired contract if the contract is not already locked.
2. Click the **START TEST** button.

   Note: **DO NOT** select the **START TEST** button once the test process is in progress.

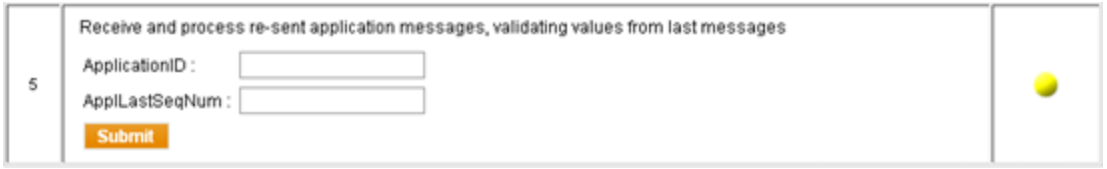
3. Send a Fix Resend Request.
4. Send an Application Message Request for an Application ID which requires an additional message.

5. Enter the value of tag 1348-ApplResponseType to verify that your system received and processed the Application Message Request Acknowledgment.

6. Enter the following tag values from the first resent message:
   - tag 1180 ApplicationID
   - tag 1181 ApplSeqNum

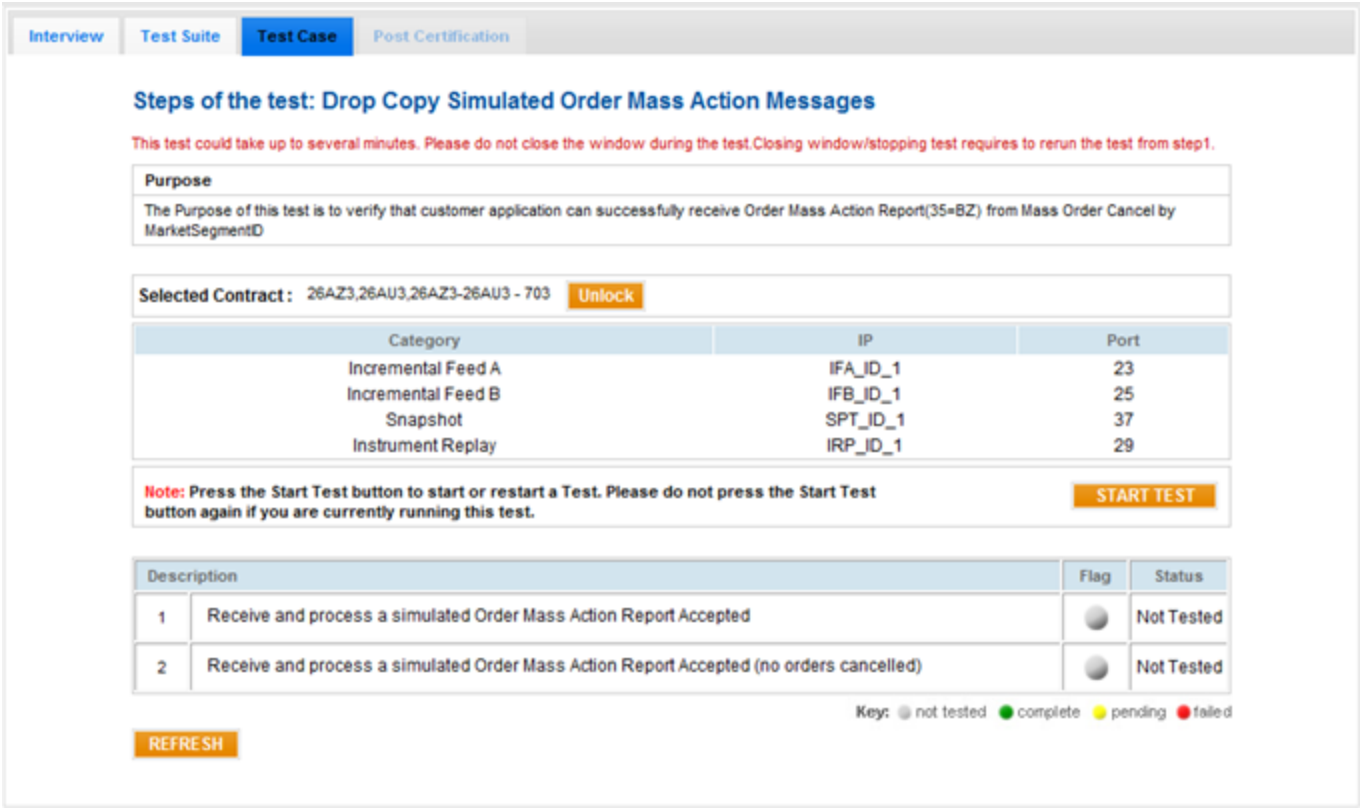


7. Enter the following tag values from the last resent message:
   - tag 1180 ApplicationID
   - tag 1350 ApplLastSeqNum



Simulated Order Mass Action Messages

This test verifies that a client system can successfully receive Order Mass Action Report (35=BZ) messages resulting from a Mass Order Cancel by Market Segment ID.


Interview
Test Suite
Test Case
Post Certification
Steps of the test: Drop Copy Simulated Order Mass Action Messages
This test could take up to several minutes. Please do not close the window during the test.Closing window/stopping test requires to rerun the test from step1.
Purpose
The Purpose of this test is to verify that customer application can successfully receive Order Mass Action Report(35=BZ) from Mass Order Cancel by MarketSegmentID
Selected Contract : 26AZ3,26AU3,26AZ3-26AU3 - 703
Unlock
Category
IP
Port
Incremental Feed A
IFA_ID_1
23
Incremental Feed B
IFB_ID_1
25
Snapshot
SPT_ID_1
37
Instrument Replay
IRP_ID_1
29
Note: Press the Start Test button to start or restart a Test. Please do not press the Start Test button again if you are currently running this test.
START TEST
Description
Flag
Status
1
Receive and process a simulated Order Mass Action Report Accepted
Not Tested
2
Receive and process a simulated Order Mass Action Report Accepted (no orders cancelled)
Not Tested
Key: not tested complete pending failed
REFRESH

To run a Simulated Order Mass Action Messages test:

1. From the **Contract** drop-down, select the desired contract if the contract is not already locked.
2. Click the **START TEST** button.

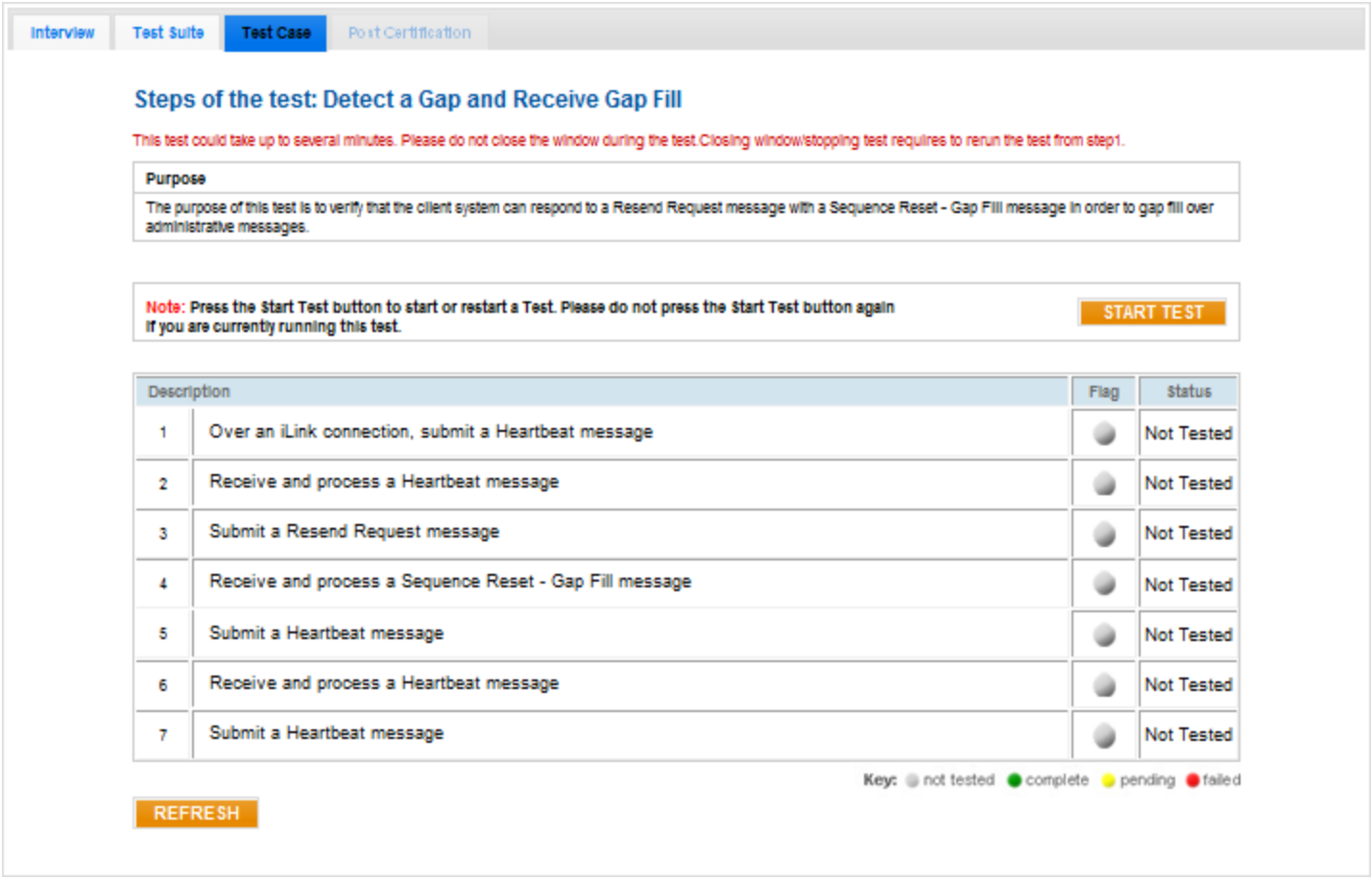
   Note: **DO NOT** select the **START TEST** button once the test process is in progress.

3. Enter the following tag values to verify that your system received the Order Mass Action Report (Accepted) message.
   - tag 1300-MarketSegmentID
   - tag 1374-MassActionScope
   - tag 1375-MassActionResponse
   - tag 533-TotalAffectedOrders
   - tag 534-NoAffectedOrders
   - tag 41-OrigClOrdID
   - tag 84-CxlQty
   - tag 535-AffectedOrderID
   - tag 893-LastFragment

4. Enter the following tag values to verify that your system received the Order Mass Action Report (Accepted, no orders cancelled) message.
    - tag 1300-MarketSegmentID
    - tag 1374-MassActionScope
    - tag 1375-MassActionResponse
    - tag 533-TotalAffectedOrders
    - tag 893-LastFragment

Detect a Gap and Receive Gap Fill

This test verifies that a client system can respond to a Resend Request message and receive and process a Sequence Reset - Gap Fill message in order to fill administrative messages.


Interview
Test Suite
Test Case
Post Certification
Steps of the test: Detect a Gap and Receive Gap Fill
This test could take up to several minutes. Please do not close the window during the test.Closing window/stopping test requires to rerun the test from step1.
Purpose
The purpose of this test is to verify that the client system can respond to a Resend Request message with a Sequence Reset - Gap Fill message in order to gap fill over administrative messages.
Note: Press the Start Test button to start or restart a Test. Please do not press the Start Test button again if you are currently running this test.
START TEST
Description
Flag
Status
1 Over an iLink connection, submit a Heartbeat message Not Tested
2 Receive and process a Heartbeat message Not Tested
3 Submit a Resend Request message Not Tested
4 Receive and process a Sequence Reset - Gap Fill message Not Tested
5 Submit a Heartbeat message Not Tested
6 Receive and process a Heartbeat message Not Tested
7 Submit a Heartbeat message Not Tested
Key: not tested complete pending failed
REFRESH

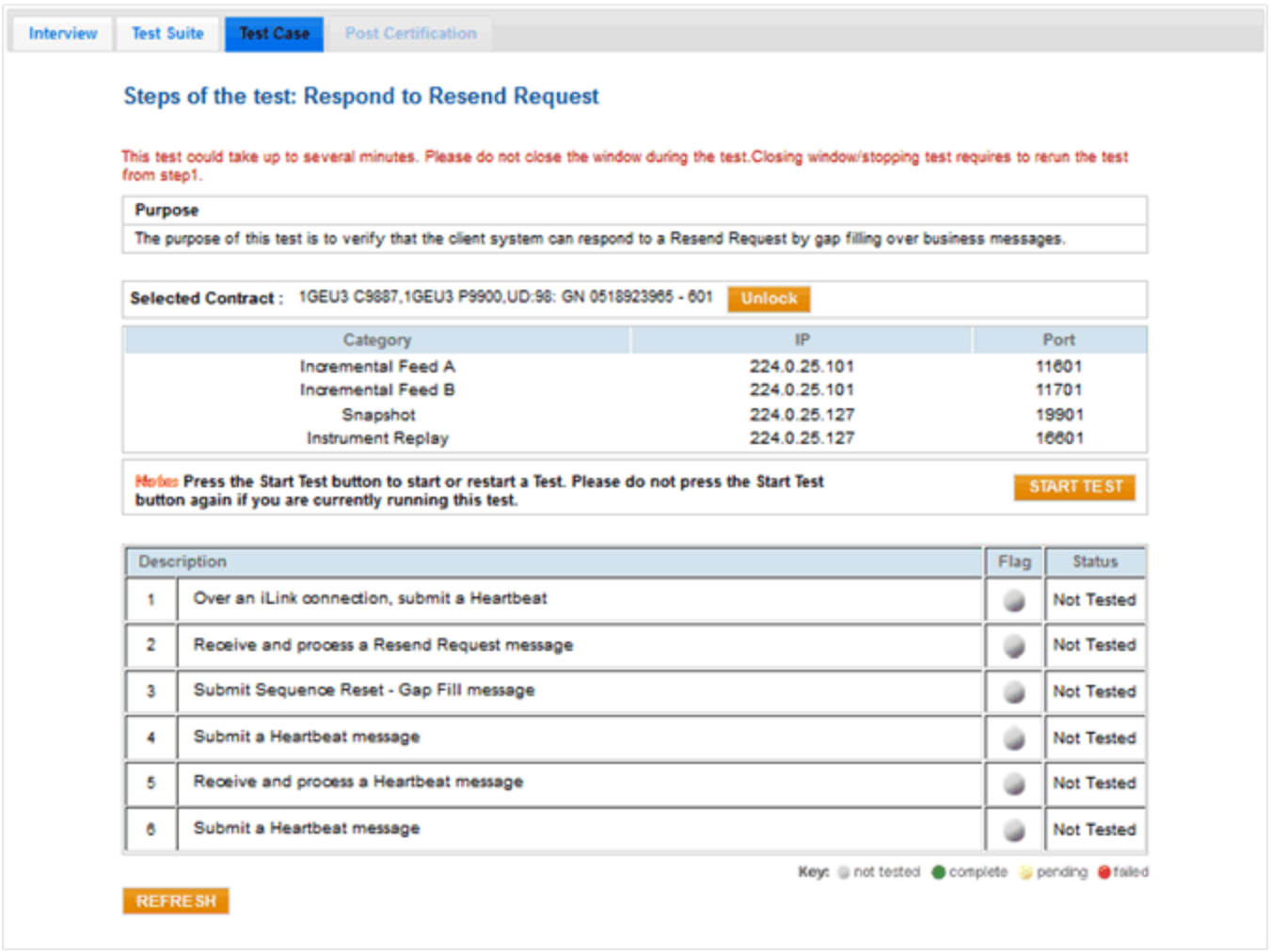
To run a Detect a Gap and Receive Gap Fill test:

1. From the **Contract** drop-down, select the desired contract if the contract is not already locked.
2. Click the **START TEST** button.

   Note: **DO NOT** select the **START TEST** button once the test process is in progress.
3. Submit a Heartbeat (tag 35-MsgType=0) message over an iLink connection.
4. Select **Yes** or **No** to indicate whether or not the client system received and processed the Heartbeat message returned by CME Group.
5. Submit a Resend Request (35=2) message.
6. Select **Yes** or **No** to indicate whether or not the client system received and processed the Sequence Reset (tag 35=4, tag 123-GapFillFlag=Y).
7. Submit a Heartbeat message.
8. Select **Yes** or **No** to indicate whether or not the client system received and processed the Heartbeat message returned by CME Group.
9. Submit a Heartbeat message.

Respond to Resend Request

This test verifies that the client system can respond to a Resend Request by gap filling business messages.



To verify that the client system can respond to a Resend Request by gap filling business messages:

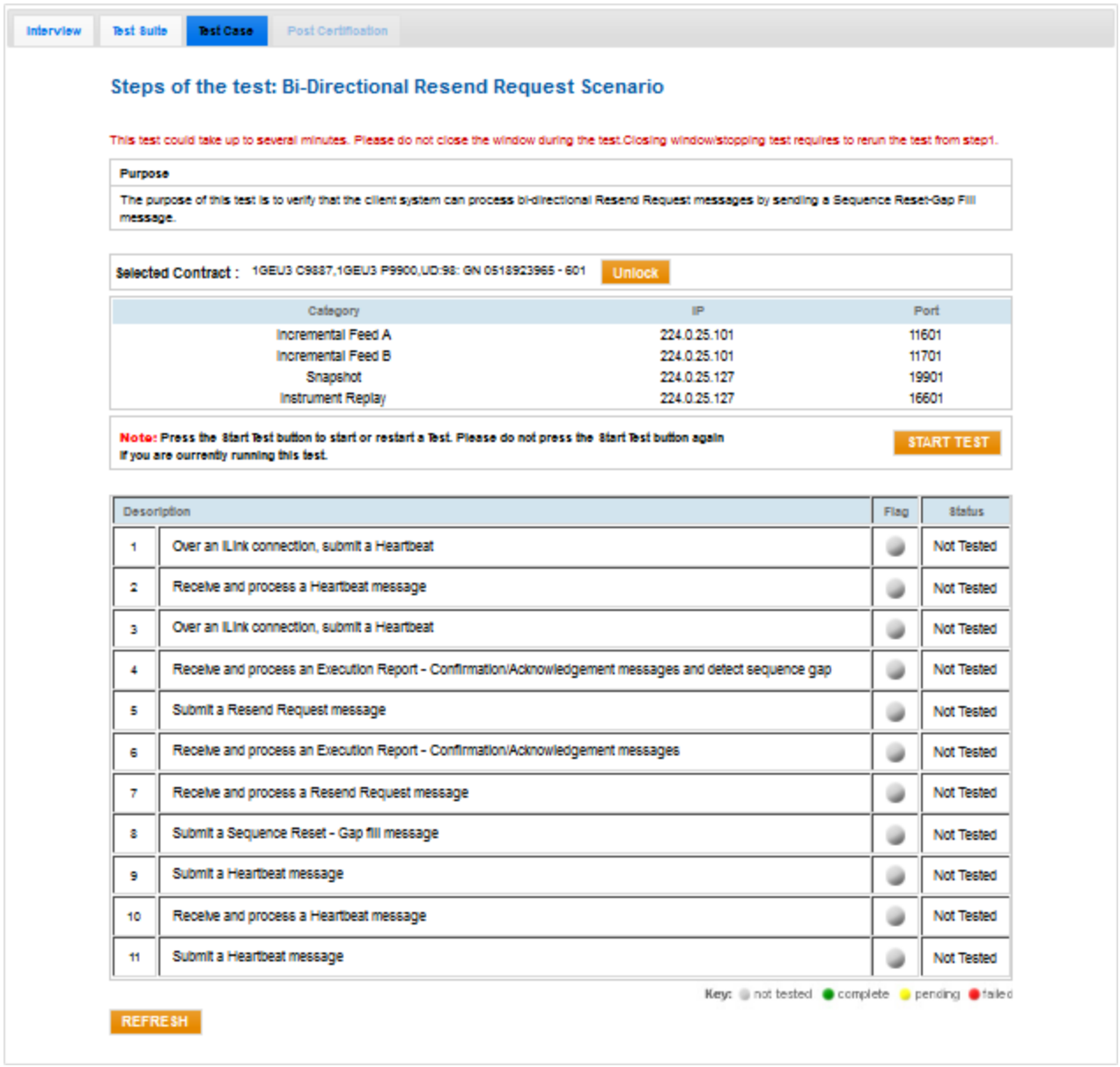
1. From the **Contract** drop-down, select the desired contract if the contract is not already locked.
2. Click the **START TEST** button.

   Note: **DO NOT** select the **START TEST** button once the test process is in progress.

3. Submit a Heartbeat (tag 35-MsgType=0) message over an iLink connection.
4. Select **Yes** or **No** to indicate whether or not the client system received and processed the Resend Request (35=2) message.
5. Submit a Sequence Reset (35=4, 123-GapFillFlag=Y) message.
6. Submit a Heartbeat (35=0) message after the heartbeat interval has passed.
7. Select **Yes** or **No** to indicate whether or not the client system received and processed a Hearbeat (35=0) message.
8. Submit a Heartbeat (35=0) message.

Bi-Directional Resend Request

This test verifies that the client system can process Bi-directional Resend Request messages by sending a Sequence Reset - Gap Fill message.


Interview
Test Suite
Test Case
Post Certification
Steps of the test: Bi-Directional Resend Request Scenario
This test could take up to several minutes. Please do not close the window during the test.Closing window/stopping test requires to rerun the test from step1.
Purpose
The purpose of this test is to verify that the client system can process bi-directional Resend Request messages by sending a Sequence Reset-Gap Fill message.
Selected Contract : 1GEU3 C9887,1GEU3 P9900,UD:98: GN 0518923965 - 601
Unlock
Category IP Port
Incremental Feed A 224.0.25.101 11601
Incremental Feed B 224.0.25.101 11701
Snapshot 224.0.25.127 19901
Instrument Replay 224.0.25.127 16601
Note: Press the Start Test button to start or restart a Test. Please do not press the Start Test button again if you are currently running this test.
START TEST
Description Flag Status
1 Over an iLink connection, submit a Heartbeat Not Tested
2 Receive and process a Heartbeat message Not Tested
3 Over an iLink connection, submit a Heartbeat Not Tested
4 Receive and process an Execution Report - Confirmation/Acknowledgement messages and detect sequence gap Not Tested
5 Submit a Resend Request message Not Tested
6 Receive and process an Execution Report - Confirmation/Acknowledgement messages Not Tested
7 Receive and process a Resend Request message Not Tested
8 Submit a Sequence Reset - Gap fill message Not Tested
9 Submit a Heartbeat message Not Tested
10 Receive and process a Heartbeat message Not Tested
11 Submit a Heartbeat message Not Tested
Key: not tested complete pending failed
REFRESH

To verify if the client system can process Bi-directional Resend Request messages by sending a Sequence Reset - Gap Fill message:

1. From the **Contract** drop-down, select the desired contract if the contract is not already locked.
2. Click the **START TEST** button.

> **Note**: **DO NOT** select the **START TEST** button once the test process is in progress.

3. Submit a Heartbeat (35=0) message over an iLink connection.
4. Select **Yes** or **No** to indicate whether or not the client system received and processed a Heartbeat message sent by CME Group.
5. Submit a Heartbeat message.
6. Select **Yes** or **No** to indicate whether or not the client system received and processed an Execution Report - Confirmation/Acknowledgement message and detect a sequence gap.
7. Submit a Resend Request (35=2) message.
8. Select **Yes** or **No** to indicate whether or not the client system received and processed an Execution Report - Confirmation/Acknowledgement message.
9. Select **Yes** or **No** to indicate whether or not the client system received and processed a Resend Request (35=2) message.
10. Submit a Sequence Reset (35=4, 123-GapFillFlag=Y) message.
11. Submit a Heartbeat message.
12. Select **Yes** or **No** to indicate whether or not the client system received and processed a Heartbeat message.
13. Submit a Heartbeat message.